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ABSTRACT

This study summarizes the responses to a 52-item questionnaire of the 1967 baccalaureate graduates who attended the 6 Kansas colleges and universities under the Board of Regents. The questionnaire was designed to appraise the quality of education received by these graduates. Results indicated that 1967 graduates had more positive than negative reactions to the education and training they received during the time they had attended these institutions. The 6 state colleges and universities seemed to have done a better job with the 1972 seniors than with the 1967 graduates; however, 5 years have elapsed since many graduates have had formal contact with schools. Tables, additional findings, and other responses to the questionnaire items are included. A related document is HE 004 308. (MJM)

ED 076124

AN APPRAISAL OF THE QUALITY OF EDUCATION RECEIVED BY THE 1967 GRADUATES AT THE SIX COLLEGES AND UNIVERSITIES UNDER THE KANSAS BOARD OF REGENTS

MASTER PLANNING COMMISSION

Planning Report Number 5
September, 1972

HE 004 025

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The Master Planning Commission on Kansas education created by the 1970 Kansas Legislature, met for the first time in April, 1970, in Topeka. Its mission is to prepare the first phase of an educational master plan for Kansas. Such master plan is to outline the goals and objectives of education in Kansas and the first phase shall consist of two parts:

Middle level public education--the area between the elementary-secondary school system and the four-year college and university, and

Private education at two-year and four-year colleges and universities.

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PREFACE

The Master Planning Commission Report Number 3 (Student Needs, Aspirations, and Accomplishments: Essential Ingredients in State Planning for Postsecondary Education) summarized eleven surveys. This study is an extension of that report and summarizes the responses of the 1967 graduates (baccalaureate), who attended the six Kansas colleges and universities under the Board of Regents, to a fifty-two item questionnaire.

The present study reported herein was planned and implemented by Dr. Kenneth E. Anderson, Master Planning Commission Executive Director. He was assisted by Dr. Jerry Hutchison, John P. Hanna, and Dr. Hernan D. Acero. Dr. Donald P. Hoyt of Kansas State University made valuable suggestions relative to the Inquiry employed in the study.

Questions concerning detailed data not reported herein should be directed to Dr. Anderson.

Wilbur T. Billington, Chairman
Master Planning Commission

I: Introduction

In educational planning, the needs and aspirations of the students that the educational system is to serve are of major importance. In creating the Kansas Master Planning Commission, the State Legislature recognized this factor by specifically charging the Commission with the task of projecting ". . . the educational needs of Kansas students . . . in this middle educational level through the mid 1980's."[1] This task was completed and the results appeared in Planning Report Number 3 published in March of 1972 under the title of: Student Needs, Aspirations, and Accomplishments: Essential Ingredients in State Planning for Post-secondary Education.

The original charge to the Master Planning Commission did not include consideration of the six state colleges and universities under the Board of Regents. In April of 1972, the charge was enlarged to include these six institutions. In viewing the previous survey studies completed, it was judged that one ingredient was missing, namely: an appraisal by the students in these colleges and universities of the education they had received. As a consequence, two survey instruments were developed:

1. INQUIRY TO 1972 SENIORS ATTENDING THE SIX KANSAS COLLEGES AND UNIVERSITIES UNDER THE BOARD OF REGENTS.[2]

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[1]Kansas Legislature, Senate Concurrent Resolution Number 40, Kansas State Printing Office, 1970.

[2]Master Planning Commission, Planning Report Number 4, August, 1972. 30 pp.

2. INQUIRY TO THE 1967 GRADUATES OF THE SIX KANSAS COLLEGES AND UNIVERSITIES UNDER THE BOARD OF REGENTS.

The second inquiry was mailed out to a twenty percent random sample during June of 1972. Table 1 shows the percentage of returns from the six colleges and universities.

TABLE 1

NUMBER AND PERCENTAGE OF GRADUATE QUESTIONNAIRES RETURNED

College or University	Number Mailed	Number Returned	Percentage Returned
1. Fort Hays Kansas State College, Hays	125	72	57.60
2. Kansas State College of Pittsburg, Pittsburg	182	83	45.60
3. Kansas State Teachers College, Emporia	94	50	53.19
4. Kansas State University, Manhattan	443	240	54.18
5. University of Kansas, Lawrence	406	217	53.45
6. Wichita State University, Wichita	138	76	55.07
Total	1388	738	53.17

II: The Results

Table 2 shows the responses of the 1967 graduates (baccalaureate) for the six colleges and universities as a group to the fifty-two items of the Inquiry. Separate compilations were made for each school and those were made available to the: (1) Master

Planning Commission, (2) Board of Regents, and (3) Presidents and Chancellor of the six institutions. The latter group was informed that each school was free to use the results in whatever way desired with the faculty, alumni, and townspeople.

Although an examination of the results for each item in Table 2 is worthwhile, the following statements are intended to highlight the responses of the graduates.

1. About 79 percent graduated from a Kansas high school.

2. About 44 percent were in high school graduating classes of 100 students or less and about 19 percent were in classes of 500 or more students.

3. About 63 percent of the graduates received their most recent formal educational experience, prior to their enrollment in one of the six colleges and universities, at a high school. About 14 percent received this experience at a junior college and about 19 percent at a four-year college or university.

4. About 12 percent had attended a Kansas Community junior college before entering one of the six state colleges and universities. Of this percentage, about 48 percent had received the associate of arts or a similar two-year degree.

5. About 50 percent of those who had attended a junior college regarded their preparation for work in these six state schools as "very good" or "superior," whereas only 11 percent regarded their preparation as "very inferior" or "inferior."

6. About 26 percent of the graduates indicated that their fathers had one or more college degrees and 19 percent reported the same for their mothers.

7. About 32 percent of the graduates estimated their yearly income to be in the bracket ranging from $10,000 to $15,000. About 45 percent reported their yearly income to be below $10,000 and another 19 percent reported it to be above $15,000.

8. The graduates were asked to estimate their grade averages. The results were as follows: (1) about 11 percent indicated about an "A" average, (2) about 62 percent indicated about a "B" average, and (3) about 26 percent indicated about a "C" average.

9. The graduates were asked to rate their undergraduate education in terms of their present occupations. About 34 percent used the term "very adequate," while only about 8 percent used the term "inadequate."

10. About 84 percent of the graduates felt that their undergraduate education provided them with sufficient opportunities for developing cultural interests and knowledge.

11. About 86 percent of the graduates indicated that they had had an inspirational teacher who was a recognized teacher of excellence in his or her field.

12. The graduates were asked to rate their colleges and universities on a five-point scale for four items. The first percentage following each item indicates "very good" or "superior" and the second percentage indicates "very inferior" or "inferior." The percentages for the seven items were:

A. Major area of study in terms of depth of study available: 51 percent and 9 percent.

B. Major area of study in terms of quality of education offered: 49 percent and 9 percent.

C. Extracurricular life offered by the institution: 48 percent and 8 percent.

D. General education: 49 percent and 6 percent.

13. About 39 percent of the graduates rated the library holdings of the colleges and universities as "very adequate" for study in their major while about 16 percent used the rating "inadequate."

14. About 43 percent of the graduates rated the library holdings as "very adequate" for study in general education while 10 percent used the rating "inadequate."

15. About 80 percent of the graduates indicated they were "more satisfied than dissatisfied" or "thoroughly satisfied" with their achievement in their colleges and universities while about 20 percent were "more dissatisfied than satisfied" or "thoroughly dissatisfied."

16. The graduates were asked to describe the preparation received at the six colleges and universities relative to seventeen items concerned with competencies, skills, and understanding using a three-point scale. The first percentage following an item is for the percentage of students using the term "strong" and the second percentage is for the term "weak." The percentages for the items were:

A. A broad experience in the humanities: 20 percent and 24 percent.

B. Competence in the arts of communication: 17 percent and 22 percent.

C. Introduction to natural science: 29 percent and 13 percent.

D. Introduction to social science: 21 percent and 13 percent.

E. Training in laboratory technique: 22 percent and 27 percent.

F. Ability to understand and use mathematical concepts: 21 percent and 24 percent.

G. Awareness of and appreciation for the aesthetic aspects of life: 20 percent and 20 percent.

H. Motivation and ability to work independently: 39 percent and 11 percent.

I. Total development as an individual: 20 percent and 12 percent.

J. Understanding the role that the sciences play in creating and solving human problems: 19 percent and 21 percent.

K. Understanding the role that the social sciences play in creating and solving human problems: 20 percent and 22 percent.

L. Gaining a theoretical and factual background as preparation for the world of work: 19 percent and 26 percent.

M. Developing skills and competencies which are needed to perform specific jobs: 23 percent and 26 percent.

N. Developing a sense of professional identification in some professional or occupational group: 31 percent and 22 percent.

O. Understanding yourself: 22 percent and 18 percent.

P. Developing interpersonal competencies: 18 percent and 14 percent.

Q. Developing a personal sense of responsibility for reducing social problems or injustices: 13 percent and 28 percent.

17. About 50 percent of the graduates indicated they continued their education after graduation in another college or university; and of these, about 86 percent did so at a public college or

university. About 79 percent pursued graduate level work and 12 percent were in professional schools (medicine, law, dentistry, and etc.). Of those pursuing graduate or professional level work, about 47 percent rated their undergraduate work as "very good" or "superior" as contrasted to about 9 percent who used the terms "inferior" and "very inferior."

18. Since graduation, about 23 percent have obtained a Master's degree, while about 4 percent have obtained a degree higher than the Master's degree.

19. The graduates were asked to respond to three questions pertaining to financial support for the colleges and universities. Response to the three items were:

A. About 80 percent of the seniors felt the State of Kansas should provide more state aid for the colleges and universities.

B. About 62 percent of those replying "yes" to the previous question felt that the aid should be given by some formula which takes into account the proportion of Kansans enrolled in these institutions.

C. About 80 percent of the seniors felt that the State of Kansas should provide special funds to reduce student fees for Kansas residents who can demonstrate financial need.

20. About 57 percent of the graduates secured a position outside of Kansas.

21. About 54 percent of the graduates indicated that they have been involved in community service, local government, or

other kinds of civic leadership or responsibilities in the communities in which they live.

22. About 90 percent indicated they have continued active learning on an independent basis.

23. About 88 percent said they felt the need to achieve as much professional excellence as their talents will permit.

24. About 40 percent indicated they have become involved in individual or group efforts to correct social injustices.

TABLE 2

RESPONSES OF THE 1967 GRADUATES TO 52 ITEMS

Questionnaire Item	N	%
1. What is your sex?		
1 - Male	412	55.8
2 - Female	326	44.2
2. The college or university I graduated from was:		
1 - Fort Hays Kansas State College (Hays)	72	9.8
2 - Kansas State College of Pittsburg (Pittsburg)	83	11.2
3 - Kansas State Teachers College (Emporia)	50	6.8
4 - Kansas State University (Manhattan)	240	32.5
5 - University of Kansas (Lawrence)	217	29.4
6 - Wichita State University (Wichita)	76	10.3
3. Did you graduate from a Kansas high school?		
1 - Yes	579	78.7
2 - No	157	21.3
4. Regardless of your answer to question 3, how many students were in your high school graduating class?		
1 - Under 100	322	43.9
2 - 100 - 199	109	14.9
3 - 200 - 499	161	21.9
4 - 500 - 999	111	15.1
5 - 1,000 and over	31	4.2
5. Where did you receive your most recent formal educational experience prior to your enrollment in the institution which granted your undergraduate degree?		
1 - High school	466	63.3
2 - A junior college	106	14.4
3 - A four-year college or university	142	19.3
4 - Some other training school	9	1.2
5 - Military training	13	1.8
6. Did you attend a Kansas Community Junior College before entering the college from which you graduated?		
1 - Yes	87	11.8
2 - No	648	87.9
7. If your answer to question 6 was <u>yes</u>, did you receive an associate of arts or similar two-year degree?		
1 - Yes	63	48.1
2 - No	68	51.9

TABLE 2 (continued)

Questionnaire Item	N	%
8. If you attended a junior college, how would you rate the educational opportunities it offered in regard to preparation for work at the college from which you graduated?		
1 - Very inferior	1	0.7
2 - Inferior	15	10.9
3 - Good	53	38.7
4 - Very good	52	38.0
5 - Superior	16	11.7
9. What is the highest level of formal education attained by your father?		
1 - Junior high or less	132	17.9
2 - Some high school	74	10.0
3 - High school graduate	194	26.3
4 - Some college	149	20.2
5 - College degree	104	14.1
6 - Postgraduate degree	85	11.5
10. What is the highest level of formal education attained by your mother?		
1 - Junior high or less	82	11.1
2 - Some high school	55	7.5
3 - High school graduate	271	36.7
4 - Some college	188	25.5
5 - College degree	124	16.8
6 - Postgraduate degree	18	2.4
11. What is your best estimate of your total income? (Consider annual income from all sources before taxes.)		
1 - Under $6,000	72	10.1
2 - $ 6,000 - $ 7,999	122	17.0
3 - $ 8,000 - $ 9,999	125	17.5
4 - $10,000 - $14,999	226	31.6
5 - $15,000 - $19,999	100	14.0
6 - $20,000 - $24,999	19	2.7
7 - $25,000 - $29,999	7	1.0
8 - $30,000 or more	8	1.1
9 - I consider this information to be confidential	37	5.2

TABLE 2 (continued)

Questionnaire Item	N	%
12. What was your average grade in college?		
1 - A or A+	22	3.0
2 - A-	62	8.4
3 - B+	141	19.2
4 - B	150	20.4
5 - B-	162	22.0
6 - C+	121	16.4
7 - C	70	9.5
8 - D	1	0.1
9 - I consider this information to be confidential	7	1.0
13. In terms of your present occupation, how would you rate the undergraduate education you received at the college or university from which you graduated?		
1 - Very adequate	249	34.2
2 - Adequate	419	57.6
3 - Inadequate	60	8.2
14. Do you feel that your undergraduate college or university provided you with sufficient opportunities for developing cultural interests and knowledge?		
1 - Yes	618	84.1
2 - No	117	15.9
15. Did you have at least one inspirational teacher in your undergraduate college or university who was recognized for excellence in his or her field?		
1 - Yes	627	85.7
2 - No	105	14.3
Rate your undergraduate college or university on items 16 to 19 using the code following each item.		
16. Your major area of study in terms of the number of courses offered or depth of study available.		
1 - Very inferior	8	1.1
2 - Inferior	58	7.9
3 - Good	291	39.5
4 - Very good	273	37.0
5 - Superior	101	13.7
6 - I had too little experience to make a judgment	6	0.8

TABLE 2 (continued)

Questionnaire Item	N	%
17. Your major area of study in terms of the quality of education offered.		
1 - Very inferior	5	0.7
2 - Inferior	59	8.0
3 - Good	309	41.9
4 - Very good	255	34.6
5 - Superior	107	14.5
6 - I had too little experience to make a judgment	2	0.3
18. Extra-curricular life offered by the institution.		
1 - Very inferior	6	0.8
2 - Inferior	51	6.9
3 - Good	264	36.0
4 - Very good	268	36.5
5 - Superior	87	11.9
6 - I had too little experience to make a judgment	58	7.9
19. General education (breadth of learning as opposed to your major area of concentration or study).		
1 - Very inferior	3	0.4
2 - Inferior	38	5.2
3 - Good	322	43.7
4 - Very good	274	37.2
5 - Superior	88	11.9
6 - I had too little experience to make a judgment	12	1.6
Answer items 20 and 21 using the code following each item.		
20. How would you rate the library holdings in your undergraduate college or university for study in your major?		
1 - Very adequate	288	39.1
2 - Adequate	328	44.6
3 - Inadequate	120	16.3
21. How would you rate the library holdings in your undergraduate college or university for study in general education?		
1 - Very adequate	317	43.2
2 - Adequate	345	47.1
3 - Inadequate	71	9.7

TABLE 2 (continued)

Questionnaire Item	N	%
22. How satisfied were you with your academic achievement in your undergraduate college or university?		
1 - Thoroughly dissatisfied	16	2.2
2 - More dissatisfied than satisfied	133	18.0
3 - More satisfied than dissatisfied	423	57.3
4 - Thoroughly satisfied	166	22.5
Rate the preparation you received at your undergraduate college or university. Use the code following items 23 to 39.		
23. A broad experience in the humanities.		
1 - Strong	145	19.7
2 - Adequate	382	51.8
3 - Weak	177	24.0
4 - No opinion	33	4.5
24. Competence in the arts of communication.		
1 - Strong	124	16.8
2 - Adequate	421	57.0
3 - Weak	161	21.8
4 - No opinion	32	4.3
25. Introduction to natural science.		
1 - Strong	215	29.1
2 - Adequate	380	51.5
3 - Weak	95	12.9
4 - No opinion	48	6.5
26. Introduction to social science.		
1 - Strong	155	21.0
2 - Adequate	441	59.8
3 - Weak	99	13.4
4 - No opinion	42	5.7
27. Training in laboratory technique.		
1 - Strong	165	22.4
2 - Adequate	277	37.6
3 - Weak	201	27.3
4 - No opinion	93	12.6
28. Ability to understand and use mathematical concepts.		
1 - Strong	153	20.8
2 - Adequate	303	41.2
3 - Weak	179	24.3
4 - No opinion	101	13.7

TABLE 2 (continued)

Questionnaire Item	N	%
29. An awareness of and appreciation for the aesthetic aspects of life.		
1 - Strong	149	20.2
2 - Adequate	383	52.0
3 - Weak	150	20.4
4 - No opinion	54	7.3
30. Motivation and ability to work independently.		
1 - Strong	279	38.5
2 - Adequate	351	48.4
3 - Weak	81	11.2
4 - No opinion	14	1.9
31. Total development as an individual.		
1 - Strong	145	20.1
2 - Adequate	469	64.9
3 - Weak	87	12.0
4 - No opinion	22	3.0
32. Understanding the role that sciences play in creating and solving human problems.		
1 - Strong	140	19.3
2 - Adequate	377	52.1
3 - Weak	150	20.7
4 - No opinion	57	7.9
33. Understanding the role that social sciences play in creating and solving human problems.		
1 - Strong	142	19.6
2 - Adequate	377	52.1
3 - Weak	157	21.7
4 - No opinion	48	6.6
34. Gaining a theoretical and factual background as preparation for the world of work.		
1 - Strong	140	19.4
2 - Adequate	363	50.2
3 - Weak	189	26.1
4 - No opinion	31	4.3
35. Developing skills and competencies which are needed to perform specific jobs.		
1 - Strong	167	23.1
2 - Adequate	346	47.9
3 - Weak	184	25.5
4 - No opinion	25	3.5

TABLE 2 (continued)

Questionnaire Item	N	%
36. Developing a sense of professional identification (membership in some professional or occupational group).		
1 - Strong	227	31.4
2 - Adequate	300	41.4
3 - Weak	160	22.1
4 - No opinion	37	5.1
37. Understanding yourself (abilities, interests, values, personality characteristics, goals).		
1 - Strong	161	22.3
2 - Adequate	408	56.4
3 - Weak	133	18.4
4 - No opinion	21	2.9
38. Developing interpersonal competencies.		
1 - Strong	127	17.6
2 - Adequate	448	62.0
3 - Weak	103	14.3
4 - No opinion	44	6.1
39. Developing a personal sense of responsibility for reducing social problems or injustices.		
1 - Strong	95	13.2
2 - Adequate	371	51.4
3 - Weak	203	28.1
4 - No opinion	53	7.3
40. Since receiving your undergraduate degree, did you continue your education in another college or university?		
1 - Yes	360	50.0
2 - No	360	50.0
41. If your answer to question 40 was yes, what type of school did you attend (or are you attending)?		
1 - Private college or university	51	13.8
2 - Public college or university	318	86.2
42. If your answer to question 40 was yes, what was the level of work taken (or are taking)?		
1 - Undergraduate work	36	9.6
2 - Graduate work	296	78.7
3 - Professional school (medicine, law, dentistry, etc.)	44	11.7

TABLE 2 (continued)

Questionnaire Item	N	%
43. If your answer to question 42 was "graduate work" or "professional school," how would you rate the preparation you received in your undergraduate college or university?		
1 - Very inferior	5	1.4
2 - Inferior	27	7.8
3 - Good	150	43.4
4 - Very good	115	33.2
5 - Superior	49	14.2
44. Since graduating from your college or university, what additional degrees have you received?		
1 - None	469	68.1
2 - Another Bachelor's degree	7	1.0
3 - A Master's degree	158	22.9
4 - A Doctor of Philosophy degree or Doctor of Education degree	16	2.3
5 - Bachelor of Law, Doctor of Law, or Doctor of Jurisprudence	14	2.0
6 - Bachelor of Divinity	0	0.0
7 - Other	25	3.6
45. Do you feel that the State of Kansas should provide more state aid to support your college or university?		
1 - Yes	550	79.3
2 - No	144	20.7
46. If your answer to question 45 was yes, should aid be given by some formula which takes into account the proportion of Kansans of the total enrolled in your college or university?		
1 - Yes	338	62.0
2 - No	207	38.0
47. Should the State of Kansas provide special funds to reduce student fees for Kansas residents who can demonstrate financial need?		
1 - Yes	567	79.7
2 - No	144	20.3

TABLE 2 (continued)

Questionnaire Item	N	%
Answer items 48 to 52 using the code following each item.		
48. After graduation, did you take a position outside the State of Kansas?		
1 - Yes	417	57.3
2 - No	311	42.7
49. Have you been involved in community service, local government, or other kinds of civic leadership or responsibilities in the community in which you live?		
1 - Yes	395	54.0
2 - No	337	46.0
50. Since graduation, have you continued active learning on an independent basis?		
1 - Yes	655	89.6
2 - No	76	10.4
51. Do you feel a need to achieve as much professional excellence as your talents will permit?		
1 - Yes	638	87.5
2 - No	91	12.5
52. Have you become involved in individual or group efforts to correct social injustices?		
1 - Yes	290	40.1
2 - No	434	59.9

III: Comparison of the Responses of the 1972 Seniors and the 1967 Graduates on Identical Items

Introduction

A number of the items used in the Inquiry for the 1972 seniors were identical to those used in the Inquiry for the 1967 graduates. Table 3 contains the 39 identical questions or items and the percentages of the seniors and graduates responding to the alternatives for each item.

Treatment of the Data

Two kinds of items appear in Table 3: (1) items where the responses are categorical in nature, and (2) items where the responses have an underlying continuum.

For all items which are categorical in nature, a * appearing after a percentage indicates that the difference between the two percentages is significant at the 5 percent probability level (5 in 100). In the case of items having an underlying continuum, two numbers appear in parentheses after the question, ability, or trait. The first represents the mean for the seniors and the second represents the mean for the graduates. A * after the parentheses indicates the means are significantly different from each other at the 1 percent level of probability. A ** indicates significance at the 5 percent level.

In order to compare the responses of the seniors and graduates, the frequencies of the total group (seniors and graduates) for each response for each item having an underlying continuum

were converted into T (normal scores).[3] In so doing, the mean of the total group in each instance will approximate 50 with a standard deviation equal to 10. These T scores were used with the distribution for the seniors and graduates to obtain the means and to compute the F value using the technique of analysis of variance.

The Results

Although an examination of the results in Table 3 is worthwhile, the statements which follow are intended to highlight the comparisons. The statements included in this discourse are those where a significant difference in percentages occurred between the two groups or those where the means differed significantly at the 1 or 5 percent level for items having an underlying continuum.

The following statements may be made in terms of significant differences in percentages:

1. About 63 percent of the 1967 graduates received their most recent formal educational experience, prior to enrollment in the undergraduate college, in high school as contrasted to about 56 percent for the 1972 seniors. About 21 percent of 1972 seniors received this experience in a junior college as contrasted to about 14 percent for the 1967 graduates. These two statements reflect the impact of the community junior colleges over a five-year period.

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[3] Kenneth E. Anderson. A Parametric Method for Processing Categorical Data Having an Underlying Continuum. Unpublished paper, 1972. 7 pp.

2. About 89 percent of the 1972 seniors indicated they had had an inspirational teacher in their undergraduate college or university as contrasted to about 86 percent for the 1967 graduates.

3. About 40 percent of the 1972 seniors indicated they planned to obtain a Master's degree whereas only about 23 percent of the 1967 graduates actually had obtained the degree.

4. About 93 percent of the 1972 seniors felt that the State of Kansas should provide more state aid to support the six colleges or universities as contrasted to about 80 percent for the 1967 graduates.

The following statements may be made in terms of significant differences in means (at the 1 percent or 5 percent level of probability):

1. The 1972 seniors were in larger-sized graduating classes than were the 1967 graduates. This reflects the unification of school districts into larger-sized ones about 1966.

2. The level of formal education attained by the 1972 seniors' fathers was higher than that for the 1967 graduates.

3. The two groups were asked to rate their colleges and universities on a five-point scale from "very inferior" to "superior" for four items. Only one difference turned out to be significant in favor of the 1967 graduates, namely: general education (breadth of learning as opposed to the major area of concentration or study).

4. The 1967 graduates rated the library holdings for study in the "major" and in "general education" higher than did the 1972 seniors.

5. The 1967 graduates were more satisfied with their undergraduate academic achievement than were the 1972 seniors.

6. The two groups were asked to describe the preparation they received at the colleges and universities relative to seventeen items pertaining to competencies, skills, and understandings using a three-point scale (strong, adequate, and weak). Although the means of 1972 seniors were higher than those of the 1967 graduates on 13 of the 17 items, significant differences occurred for seven of the items as follows:

A. The 1972 seniors described their preparation as stronger with regard to: (1) total development as an individual, (2) understanding the role that sciences play in creating and solving human problems, (3) understanding the role that social sciences play in creating and solving human problems, (4) gaining a theoretical and factual background and preparation for the world of work, (5) understanding yourself (abilities, interests, values, personality characteristics, goals), (6) developing interpersonal competencies, and (7) developing a personal sense of responsibility for reducing social problems or injustices.

TABLE 3

COMPARISON OF THE RESPONSES OF THE 1972 SENIORS AND THE 1967 GRADUATES TO IDENTICAL ITEMS

Item	Percentage	
	Seniors	Graduates
1. Did you graduate from a Kansas high school?		
1 - Yes	79.9	78.7
2 - No	20.1	21.3
2. Regardless of your answer to the previous question, how many students were in your high school graduating class? (51.28 - 49.14)*,4		
1 - Under 100	33.5	43.9
2 - 100 - 199	15.4	14.9
3 - 200 - 499	21.0	21.9
4 - 500 - 999	24.1	15.1
5 - 1,000 and over	6.0	4.2
3. Where did you receive your most recent formal educational experience prior to your enrollment in this college or university?		
1 - High school	56.2	63.3*,4
2 - A junior college	21.1*,4	14.4
3 - A four-year college or university	17.1	19.3
4 - Some other training school	1.0	1.2
5 - Military training	4.5*	1.8
4. Did you attend a Kansas Community Junior College before entering this college or university?		
1 - Yes	20.7*	11.8
2 - No	79.3	87.9*

[4]In item number 2, the mean for the seniors was 51.28 and the mean for the graduates was 49.14. The * indicates that the difference in means was significant at the 1 percent level. In this case, it indicates that the seniors were in larger-sized graduating classes than were the graduates. The mean for the seniors always appears first followed by that for the graduates.

In item number 3, the * indicates that the difference between the two percentages was significant at the 5 percent level. In the first instance, the * indicates that a significantly greater percentage of the graduates when compared with the seniors, received their most recent formal education in high school prior to enrollment in one of the six colleges and universities.

TABLE 3 (continued)

Item	Percentage	
	Seniors	Graduates
5. If your answer to question 6 was yes, did you receive an associate of arts or similar two-year degree?		
1 - Yes	51.9	48.1
2 - No	48.1	51.9
6. If you attended a junior college, how would you rate the educational opportunities it offered in regard to preparation for work at this college or university? (49.41 - 51.01)		
1 - Very inferior	4.0	0.7
2 - Inferior	15.0	10.9
3 - Good	35.3	38.7
4 - Very good	36.4	38.0
5 - Superior	9.2	11.7
7. What is the highest level of formal education attained by your father? (50.58 - 49.52)**		
1 - Junior high or less	12.7	17.9
2 - Some high school	8.0	10.0
3 - High school graduate	28.8	26.3
4 - Some college	22.1	20.2
5 - College degree	18.2	14.1
6 - Postgraduate degree	10.3	11.5
8. What is the highest level of formal education attained by your mother? (50.32 - 49.39)		
1 - Junior high or less	7.3	11.1
2 - Some high school	6.3	7.5
3 - High school graduate	39.6	36.7
4 - Some college	26.2	25.5
5 - College degree	17.3	16.8
6 - Postgraduate degree	3.3	2.4

TABLE 3 (continued)

Item	Percentage Seniors	Percentage Graduates
9. What is your average grade in college or university work thus far? (50.27 - 49.95)		
1 - A or A+	4.5	10.1
2 - A-	10.9	17.0
3 - B+	15.0	17.5
4 - B	18.4	31.6
5 - B-	23.1	14.0
6 - C+	18.7	2.7
7 - C	7.4	1.0
8 - D	0.5	1.1
9 - I consider this information confidential	1.5	5.2
10. Do you feel that your undergraduate college or university and its program has provided you with sufficient opportunities for cultural growth and development?		
1 - Yes	81.0	84.1
2 - No	19.0	15.9
11. Do you feel that you have had an inspirational teacher in your undergraduate college or university who was a recognized teacher of excellence in his or her field?		
1 - Yes	89.4*	85.7
2 - No	10.6	14.3*
Rate your undergraduate college or university on items 12 to 15 using the code following each item.		
12. Your major area of study in terms of the number of courses available or depth of study available. (50.51 - 49.98)		
1 - Very inferior	1.9	1.1
2 - Inferior	11.0	7.9
3 - Good	33.1	39.5
4 - Very good	32.0	37.0
5 - Superior	21.5	13.7
6 - I have had too little experience to make a judgment	0.4	0.8

TABLE 3 (continued)

Item	Percentage Seniors	Graduates
13. Your major area of study in terms of the quality of education offered. (50.38 - 49.87)		
1 - Very inferior	1.9	0.7
2 - Inferior	10.6	8.0
3 - Good	32.3	41.9
4 - Very good	35.0	34.6
5 - Superior	19.8	14.5
6 - I have had too little experience to make a judgment	0.3	0.3
14. Extra-curricular life offered by the institution. (49.85 - 50.52)		
1 - Very inferior	0.9	0.8
2 - Inferior	10.1	6.9
3 - Good	36.1	36.0
4 - Very good	31.0	36.5
5 - Superior	13.1	11.9
6 - I have had too little experience to make a judgment	8.8	7.9
15. General education (breadth of learning as opposed to your major area of concentration or study). (49.39 - 50.93)*		
1 - Very inferior	0.7	0.4
2 - Inferior	6.6	5.2
3 - Good	50.0	43.7
4 - Very good	32.2	37.2
5 - Superior	8.5	11.9
6 - I have had too little experience to make a judgment	1.9	1.6
Answer items 16 and 17 using the code following each item.		
16. How would you rate the library holdings in your undergraduate college or university for study in your major? (48.97 - 50.51)*		
1 - Very adequate	32.3	39.1
2 - Adequate	44.3	44.6
3 - Inadequate	23.4	16.3

TABLE 3 (continued)

Item	Percentage	
	Seniors	Graduates
17. How would you rate the library holdings in your undergraduate college or university for study in general education? (48.88 - 50.12)*		
1 - Very adequate	37.8	43.2
2 - Adequate	47.2	47.1
3 - Inadequate	15.0	9.7
18. How satisfied have you been with your academic achievement in your undergraduate college or university? (49.24 - 50.46)*		
1 - Thoroughly dissatisfied	2.7	2.2
2 - More dissatisfied than satisfied	22.7	18.0
3 - More satisfied than dissatisfied	56.7	57.3
4 - Thoroughly satisfied	17.9	22.5
19. Seniors: What is the highest academic degree you intend to obtain? Graduates: Since graduating from your college or university, what additional degrees have you received? Only the degrees common to both groups are listed.		
1 - A Master's degree	40.3*	22.9
2 - A Doctor of Philosophy or Doctor of Education degree	8.0	2.3
3 - Bachelor of Law, Doctor of Law, or Doctor of Jurisprudence	3.4	2.0
4 - Bachelor of Divinity	0.2	0.0
Rate the preparation you received at your undergraduate college or university. Use the code following items 20 to 36.		
20. A broad experience in the humanities. (50.22 - 49.66)		
1 - Strong	20.6	19.7
2 - Adequate	54.1	51.8
3 - Weak	20.6	24.0
4 - No opinion	4.6	4.5
21. Competence in the arts of communication. (50.24 - 49.54)		
1 - Strong	20.2	16.8
2 - Adequate	55.3	57.0
3 - Weak	19.9	21.8
4 - No opinion	4.6	4.3

TABLE 3 (continued)

Item	Percentage	
	Seniors	Graduates
22. Introduction to natural science. (49.65 - 50.26)		
1 - Strong	26.5	29.1
2 - Adequate	52.0	51.5
3 - Weak	14.6	12.9
4 - No opinion	6.9	6.5
23. Introduction to social science. (50.52 - 49.91)		
1 - Strong	25.7	21.0
2 - Adequate	55.5	59.8
3 - Weak	13.6	13.4
4 - No opinion	5.1	5.7
24. Training in laboratory technique. (49.54 - 50.13)		
1 - Strong	22.1	22.4
2 - Adequate	32.3	37.6
3 - Weak	31.5	27.3
4 - No opinion	14.1	12.6
25. Ability to understand and use mathematical concepts. (50.09 - 50.55)		
1 - Strong	21.5	20.8
2 - Adequate	38.6	41.2
3 - Weak	28.8	24.3
4 - No opinion	11.1	13.7
26. An awareness of and appreciation for the aesthetic aspects of life. (50.52 - 49.98)		
1 - Strong	26.8	20.2
2 - Adequate	43.8	52.0
3 - Weak	22.7	24.0
4 - No opinion	6.7	7.3
27. Motivation and ability to work independently. (49.78 - 49.95)		
1 - Strong	41.1	38.5
2 - Adequate	42.8	48.4
3 - Weak	14.8	11.2
4 - No opinion	1.3	1.9

TABLE 3 (continued)

Item	Percentage	
	Seniors	Graduates
28. Total development as an individual. (50.32 - 49.08)*		
1 - Strong	29.9	20.1
2 - Adequate	52.6	64.9
3 - Weak	12.9	12.0
4 - No opinion	4.6	3.0
29. Understanding the role that sciences play in creating and solving human problems. (50.86 - 49.82)**		
1 - Strong	26.3	19.0
2 - Adequate	45.7	52.1
3 - Weak	19.7	20.7
4 - No opinion	8.2	7.9
30. Understanding the role that social sciences play in creating and solving human problems. (50.94 - 49.73)*		
1 - Strong	26.6	19.6
2 - Adequate	48.1	52.1
3 - Weak	19.3	21.7
4 - No opinion	6.0	6.6
31. Gaining a theoretical and factual background as preparation for the world of work. (50.91 - 49.15)*		
1 - Strong	27.0	19.4
2 - Adequate	49.1	50.2
3 - Weak	19.8	26.1
4 - No opinion	4.1	4.3
32. Developing skills and competencies which are needed to perform specific jobs. (50.21 - 49.73)		
1 - Strong	26.2	23.1
2 - Adequate	46.6	47.9
3 - Weak	24.4	25.5
4 - No opinion	2.9	3.5
33. Developing a sense of professional identification (membership in some professional or occupational group). (50.09 - 50.07)		
1 - Strong	32.9	31.4
2 - Adequate	38.5	41.4
3 - Weak	23.5	22.1
4 - No opinion	5.2	5.1

TABLE 3 (continued)

Item	Percentage	
	Seniors	Graduates
34. Understanding yourself (abilities, interests, values, personality characteristics, goals). (50.68 - 48.48)*		
1 - Strong	34.9	22.3
2 - Adequate	47.0	56.4
3 - Weak	13.6	18.4
4 - No opinion	4.4	2.9
35. Developing interpersonal competencies. (50.45 - 49.50)**		
1 - Strong	21.7	17.6
2 - Adequate	58.4	62.0
3 - Weak	12.2	14.3
4 - No opinion	7.8	6.1
36. Developing a personal sense of responsibility for reducing social problems or injustices. (51.26 - 49.06)*		
1 - Strong	23.0	13.2
2 - Adequate	48.5	51.4
3 - Weak	21.1	28.1
4 - No opinion	7.4	7.3
37. Do you feel that the State of Kansas should provide more state aid to support your college or university?		
1 - Yes	92.8*	79.3
2 - No	7.2	20.7*
38. If your answer to question 37 was yes, should aid be given by some formula which takes into account the proportion of Kansans of the total enrolled in your college or university?		
1 - Yes	57.0	62.0
2 - No	43.0	38.0
39. Should the State of Kansas provide special funds to reduce student fees for Kansas residents who can demonstrate financial need?		
1 - Yes	82.0	79.7
2 - No	18.0	20.3

IV: Summary

It is apparent from the statements intended to highlight the results in Table 2, that the 1967 graduates in the six state colleges and universities, under the Board of Regents, had more positive than negative reactions to the education and training they had received during the time they had attended these institutions.

Table 3 suggests that the six state colleges and universities, with a few exceptions, did a better job with the 1972 seniors than was the case with the 1967 graduates. This statement must be tempered, however, by the fact that a period of five years had elapsed since many of the graduates had had formal contact with the schools.